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The Journal intends to give to the practising teachers and concerned administrators, authentic information about the educational policies being decided on and pursued at the Central level. It aims at giving meaningful and relevant material for direct use in the classroom. It would carry announcements of programmes, courses of study, etc., offered at various centres in India from time to time. It also provides a forum for the discussion of contemporary issues in the field of education.

The major features of The Primary Teacher are :

1. Educational policies concerning primary education
2. Questions and answers
3. States round-up
4. Illustrated material for classroom use.

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CONTENTS

1	A New Look on Nation Builders	SHAMSUDDIN
5	Piaget on 'Play'	G.N. PRAKASH SRIVASTAVA
10	Effective School Broadcast	SUNIL BEHARI MOHANTY
13	Developing Self Study Habits	I. SATYA SUNDARAM
16	Primary Education in Rural West Bengal	H.B. MAZUMDER
20	Projection of School Enrolment	ADEYEMI AKINSANYA
23	Evaluating Educational Outcomes	PRITAM SINGH
27	Evaluation of Interests	S.L. MAKKAR
29	Creativity in Typing	PRABHAKAR RAIZADA
33	TEACHERS WRITE A Gifted Child : A National Asset	K. SRINIVASA MURTI
35	The Art of Story-telling	GOPAL SHARMA
37	NEWS AND VIEWS	





A New Look on Nation Builders

SHAMSUDDIN

The plant of freedom which has been grown with the help of the martyrs should now be grown and made to bloom like a lovely flower by the teachers. They are the builders of a new nation.

From the time immemorial, the teacher has been enjoying a high status and esteem in society. He has been termed as the 'torch-bearer' of the race, the one who by the light of his knowledge removes the darkness of ignorance. He moulds the lives of thousands of children and is known as the builder of the nation. He dedicates his life to the service of others. There is no profession so rewarding, so demanding and so rich in potentialities as the profession of teaching. Those who are in it have an opportunity for public service which is opened for only a few professions.

The story of the Indian teacher, however, invites serious consideration. The long years of slavery under foreign domination have seriously told upon the high status and noble profession of the teachers. Authoritarian control, social backwardness, economic trouble and cultural setbacks have all resulted in the perversion of the teaching profession.

It is since the dawn of freedom that the Indian teacher was allowed to think freely

about the social, economic and cultural conditions of people in this country. He has been awakened from his long slumber and is now seriously considering the responsibilities placed on his shoulders.

Reawakening

This is not the whole story. The Indian teacher today is faced with a new era in education calling for greater effort on the part of teachers. After political independence and the establishment of a democratic form of government, the teachers have new ideals before them.

The social change has brought about a new order of life. The economic condition, however, takes time to change and under the circumstances the teacher's lot has not improved. The problem of bread and butter is attracting their greater attention to the neglect of higher demands of their profession.

The two fundamental weaknesses in contemporary Indian society are (a) lack of purpose and (b) too great a concern

with economic security. These are closely related and result in the perversion of democratic philosophy into the doctrine of hedonism and laissez faire. The personal choice of people is more conditioned by convenience and material gain than by honesty, nobility and truthfulness.

Criticism of System

There is no doubt that the Indian teacher is confronted with a number of problems and we cannot but visualize the results. Today, he is faced with shortage of funds, poor teaching facilities and other deficiencies in quality of the country's educational system. The proof of all this is seen in the discussions in seminars and vehement criticism in debates on matters of education. Also at the same time, we cannot deny the fact that there are enormous resources of talent and idealism in our youth. They have lively minds, willing hearts and a dedication to service.

All this leads us to believe in the rich possibilities of intellectual and social advancement. The practical issues are feeding the hungry, teaching the ignorant, building schools, shortage of housing and care of destitutes, providing work to the unemployed and using science and technology for human welfare.

The new era has brought about a progressive outlook in every field of human endeavour. The old traditional ideals have been discarded and new aims and ideals based on democratic principles are being established. Education today is dedicated not only to the intellectual development of Indian youths but to their moral and social welfare also. This has necessitated an overall change in the pattern of education. However, it is a period of transition, evolution and the Indian teacher is privile-

ged to witness the old and the new side by side. He is here to take stock of the past and the vast possibilities of the future.

Progressive Philosophy

The progressive education of new era presents a clear contrast to old conservative doctrines of the past. Previously, we discriminated between pupils and separated the sheep from the goats, putting some to work with their hands, others with their heads, selecting the gifted for higher education and making examination more and more stiff to make a better judgement of their abilities.

The new era provides all with equal opportunities. Each child gets the education which his talents deserve. The purpose is to allow the child to do his best and to contribute his most to the total life of the community. Now, as we realize that all children are not the same—they vary in talent, motivation and interest, some are rich, others are poor; some come from urban areas, others come from rural areas; some are highly intelligent, others are poor and backward; as such education makes greater demands on teachers.

For example, if the children have not yet learned to study, if their environments have crushed their curiosity, if they are intellectually underdeveloped and culturally backward, they need a method of teaching which is lively, vigorous, informative and attractive.

Overall Change

If there are obstacles to their education, we have to remove them rather than deprive them of educational facilities. National awakening and social change have resulted in the rapid increase in the number of school-going children in our schools. Also

the scheme of compulsory education for the children in the age group of 6—11 has added to this number. And the Indian teacher is facing with the problem of dealing with this growing mass of students.

The reorganisation of secondary education in India has brought about an overall change in the curriculum of our schools, demanding greater efficiency and hard work on the part of teachers. The curriculum is based on the needs of the people and the subjects are fixed to suit the interests of the students. There is a wide choice and the students are directed and guided to select their subjects according to their aptitudes, abilities, taste and interests.

Modern progress in the field of science and technology, combined with the advancement in the field of culture and civilization has brought the highest glory to the human race in the present-day world.

In a race for victory over the physical, mental, natural and earthly forces, man has bewildered the world. But strangely enough, a paradox as it may appear, man today has fallen down from the peaks of his real glory. He claims to know everything of this earth but he does not know himself. He has gained a lot of power but has lost faith in himself, he is crying for peace but is standing on the brink of the very destruction of the human race.

Similarly, great expansion in the field of education is going on throughout the length and breadth of the world. Every advanced country is making experiments and formulating the latest theories in the principles and practices of education. But with what result? Is it not the cry all over the world today that the standard of education is falling down, the type of students coming out of the modern educa-

tional institutions are not fit in society and the teacher is losing his status and position.

This requires us to think seriously over the situation and find out the underlying causes of the present downfall in the field of education.

The value of a profession in any country depends on a number of factors—political, social, economic and cultural. The values of life as approved and accepted by the majority in society have also serious effects on any profession. The teaching profession is not an exception to it.

In the materialistic world today, man has become money-minded. He wants to possess more wealth in order to buy comforts and luxuries besides fulfilling his necessities of life. If we look at the teaching profession from this perspective, we find the situation most deplorable. Teachers are not well paid and are even deprived of the basic amenities of life. This tells upon the value of the teaching profession and ultimately the choice of teaching as a career.

In spite of this woeful tale in view of the importance of education and the necessity of good teachers, we cannot afford to continue with this state of affairs for long. Efforts will have to be made to improve the economic condition of teachers. Since this is not possible in a day and will take its own time. Teachers will have to be prepared for this dedicating and sacrificing profession realizing that the task is difficult but not impossible.

It offers nothing but blood and sweat, toil and tears. If our teachers make a start with confidence and faith, there is no reason why they should not be able to reach their destination despite the impending tedious journey. Thus, the teachers have to play an important role in framing the lives of the future citizens. They have

not only to look to the mental development of the children but have to pay heed to the physical, social and moral aspects, too, making them perfect and useful citizens of the nation.

In brief, it should be a matter of great fortune and pride for the teachers that they

are the builders of a new nation. The plant of freedom which has been grown with the help of the martyrs should now be grown and made to bloom like a lovely flower by the teachers as builders of a new nation.

7/150, Baijnath Para, Raipur (M.P.)

We do not say that a teacher communicates knowledge to the pupil, as though the knowledge which is in the teacher is numerically the same as that which arises in the pupil. It is rather than the knowledge which arises in the pupil through teaching is similar to that which is in the teacher: as this was raised from potency into act.

Man can truly be called a true teacher inasmuch as he teaches the truth and enlightens the mind. This does not mean, however, that he endows the mind with light, but that, as it were, he co-operates with the light of reason by supplying external help to it to reach the perfection of knowledge.

'To me, the least of all saints, is given this grace...to enlighten all men'.

—St. Thomas Aquinas

Piaget on 'Play'

G.N. PRAKASH SRIVASTAVA

The importance of play in childhood has long been recognised. Plato saw it as the best way to begin children's education. Play provides the opportunity to detect child's nature.

Friedrich Froebel emphasised upon educational significance in play and started child centred education by saying 'play is a serious business' and 'play is child's work'. He found play as unfolding of the divine essence of the child whose activities were symbols to be interpreted only by those acquainted with certain mysterious laws of development.

Child centred movement got impetus with Rousseau's 'Emile' which was against authoritarian instruction and 'formalism'. As a result, playway method was introduced in education because play is the nature of child.

Then emerged theories of play. For Carl Groos play was a preparation for later life and for Stanley Hall, it was a recapitulation of the stages in evolution of species. The psycho-analysts also had interpretations of play to offer. They found therapeutic values of play. Love and hostility, anxiety and aggression, sympathy and jealousy are all there together with a great variety of fantasies and defence maneuvers. In play, the emotional, physio-

logical and intellectual aspects are interwoven and only logically separable. Anna Freud believed that the brilliant thinking of the child is nowhere more apparent than in spontaneous play. Psycho-analytic theory has for so long regarded the young child's conflicts but also of his developing intellectual competence. "The play child," says Erikson (1959, p. 85) "advances forward to new stages of real mastery."

Piaget's Views on Play

Perhaps no single investigator in the world has given more attention to cognition in children than has Piaget. His volume, 'Play, Dreams and Imitation in Childhood' (1962) describes the evaluation of the child's thought as revealed in his play from infancy through the period of early childhood. Piaget identified instances in which accommodation is ascendant over assimilation. Conversely when assimilation takes priority, the child is seen as playing. Children imitate adults, other children, animals and even machines. But the predominant process in most of spontaneous play seems to be assimilation :

"Play constitutes the extreme pole of assimilation of reality to the ego while at the same time, it has something of the creative imagination which will be the mother of all future thought and even of reason. "(Piaget 1962, p. 162)."

Piaget seems to suggest that structured play may not be sufficient, particularly for the younger children. According to him, the construction of logical thought depends not only on the child's activity with material things but also on the social collaboration with other children. Characteristically, the pre-school child has difficulty in conceiving a point of view different from his own. But interaction with his peers in the social 'give and take' of spontaneous play confronts him with the necessity of accommodating himself to their ideas :

".....doing things in social collaboration, in group effort..... leads to a critical frame of mind where children must communicate with each other. This is an essential factor in intellectual development" (Piaget, 1964, p.4).

Piaget's theoretical formulations regarding the function of play in the intellectual life of the child can be used to support the contention that spontaneous play has a legitimate place in the nursery school and kindergarten curriculum.

Spontaneous play provides not only a good means for practising and thus consolidating or assimilating what one knows but also for confronting or accommodating to situations that may challenge and potentially revise that knowledge.

Piaget's Stage and Play

According to Piaget the child is not passive. He is active, curious, dynamic and explorative. He always seeks to maintain a balance between the assimilatory and accommodatory processes. This is the 'Equilibration' process to maintain the

internal balance. The child always seeks an equilibrium between what he understands and what he experiences in his environment. It is this search for equilibrium that leads the child gradually to higher levels of thoughts :

"development is a progressive equilibrium from a lesser to a higher state of equilibrium."
—Piaget.

For Piaget play is part and parcel of the child's cognitive development. By cognitive development is meant the development of all the intellectual processes such as perceiving, knowing, recognising, remembering, thinking, abstracting and generalising.

Stages of Cognitive Development

- | | |
|-----------------------------------|-----------------------|
| 1. Sensory Motor stage | 0-2 Years. |
| 2. Pre-operational stage | 2-7 Years. |
| (a) Pre-conceptual stage | 2-4 Years |
| (b) Perceptual or intuitive stage | 4-7 Years |
| 3. Concrete operational stage | 7-11 Years. |
| 4. Formal operational stage | 11—15, 16, adulthood. |

Sensory Motor Stage

The child learns through sensory motor experiences at this stage through senses and physical explorations. Baby's perceptions and motor activities indicate his intelligence. At 6 or 7 month's age the child imitates patterns of motor behaviour. At 12 months' age there is transition from sensory motor experiences to symbolic thought. The child through repeating the motor behaviour sequence indulges in self entertainment. The child's behaviour towards the end of sensory-motor stage shows a transition from sensory-motor experiences to symbolic thought. It shows the emergence of problem solving behaviour as well. It is through innumerable varieties of play experiences

involving objects and people that the child gradually assimilates the realities of the world around him.

The child also displays the capacity for, what Piaget calls "deferred imitation." In deferred imitation, the child imitates something or somebody observed sometime in the past. This indicates that the child begins to have 'mental images or concrete symbols of past events or 'invisible objects'. This is beginning of the child's capacity to remember.

Play and Imitation

Play helps the child to assimilate objects and activities for his own pleasure and satisfaction. But imitation involves a deliberate attempt on the part of the child to accommodate himself to new objects and activities. Thus the purpose of imitation is to copy or accommodate to the objects of reality while that of play is the assimilation of reality to one's own private thinking. During the first two years of sensory motor period imitation and play overlap.

Evolution of Practice Games

The first forms of play i.e. 'Practice-games' develop out of sensory motor activities at this stage. They are often based on imitation of activities. Arranging blocks in a pile, throwing play objects repeatedly which the parents pick up and give him, hide and seek etc. are some of the examples of such games. Practice games afford enough opportunities to the child in such activities as jumping, rolling, bending, pulling, lifting, throwing, running, etc. which are all necessary for motor and muscular coordination.

The child in pre-operational stage is able to express his experiences in language. He

begins to use symbolic substitute in the form of language. During play, he asks for things, expresses his experiences in simple words, phrases and sentences.

Here the child puts a lot of effort and judgement in planning, organising and executing the play activities.

Make-believe Play

It helps the child to explore and discover things, learn new speech skills and practise old ones, realise the importance of cooperation and satisfy some of his emotional needs. It helps the child to express himself freely and creatively. It makes the child's fantasy life rich, enjoyable and satisfying. It increases the child's awareness of the reality and lays the foundations of adapted intelligence.

Symbolic play is at its peak during the pre-conceptual stage (2-4 years). Early symbolic play mostly takes the form of playing with dolls where he works out his emotional conflicts and difficulties on the dolls and thus satisfies his emotional needs.

Symbolic games are classified into three categories :

Type I- Games include such things as pretending to be asleep and making the doll sleep.

Type II- Games the child makes use of his body to represent other things as crawling and saying "I am a tiger."

Type III- Games are more complex which involve enactment of the scene rather than bits.

In other words, the child pretends to do such things as boiling water, pouring it into the bucket, testing how hot it is, pouring water on doll, applying soap, wiping the

doll's body with cloth and then dressing the baby etc.

Perceptual Stage

Now symbolic games tend to decline in importance. They begin to get transformed into coherent and organised games with rules though many children do not play games with rules, and rule bound games are generally played at the age of 7 years.

The child's language ability helps him to follow directions and to be precise and clear in his expression of ideas. The child's egocentricism gradually gives way to a better understanding of the world of reality.

During this stage, the child's imitation of reality tends to be more precise and clear.

Concrete Operational Stage

At this stage the play is characterised by socialised activities and games with rules. There is the merging of symbolic play with spontaneous creative activity. Very often the rules of the games are passed from the older children to the younger ones. As the child grows there is an increasing awareness of the rules of the games. By the time the child is ten years, the rules of the games are no longer graded as final or sacred laws. They are understood as the decision arrived at by children who play the game. There is the realization that respect for rules of the game is based upon mutual consent and cooperation.

The child at this stage needs outdoor games and skills. Besides these, their play activities should encourage such plays as the construction of dams canals, streams, bridges, tunnels, etc with sand, clay and other materials. These give scope for stimulating the child's creative capacity.

Educational Implications

The characteristics of child's play during the sensory motor stage of development point to the need to provide stimulating environmental conditions at this stage. Studies have shown that children brought up in an enriched environment surrounded by adults and children who affectionately play with them are found to show superior cognitive development to those brought up in poor environment. This being so, the need for providing stimulating environment during the first two years of the sensory-motor stage becomes imperative. Since most parents are not aware of the importance of play in the cognitive development of the baby during the first two years of life, it is necessary to educate the parents in this regard. We may make use of mass media such as the radio, the television and the film for this purpose.

Piaget's observation of the kind of play children engage in during the pre-conceptual stage of cognitive development calls for careful planning of pre-school education. At this stage activity forms the basis for the child's thinking and this is to be ensured through suitable play materials and opportunities to play. There may be two categories of materials at this stage :

- (i) Materials that provide - creative, constructive and experimental play,
- (ii) Materials which promote symbolic or imaginative play.

The playrooms in the school may have materials such as sand, tray, clay, chalks, hollow building blocks, top houses, shells, coloured boards, wooden cut-out letters, and numbers, picture puzzles, small buses, vans, trucks, wooden animals, dolls, doll dresses, beads of different colours and so on. There is no need for expensive materi-

als. Besides these materials, the child needs individual attention and ways and means of ensuring this have to be explored.

At the concrete operational stage, opportunities should be provided to use concepts and skills acquired by them. The play material should have the potential of child's physical and mental development. Educational games and play-way exercise

should be happily blended in teaching different school subjects. Projects and group activities with play spirit may be introduced.

It is important to remember that play materials should be graded and selected carefully to suit the child's level of cognitive development.

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There is much discussion as to the characteristics of a good tutor. My first requirement, and it implies a good many more, is that he should not take up his task for reward. There are callings so great that they cannot be undertaken for money without showing our unfitness for them; such callings are those of the soldier and the teacher.

A tutor ! What a noble soul ! Indeed for the training of a man one must either be a father or more than a man. It is this duty you would calmly hand over to a hireling.

—Rousseau

Effective School Broadcast

SUNIL BEHARI MOHANTY

Radio and television are, undoubtedly, a powerful medium for entertainment, knowledge and communication. The Government has recognised the importance of these media to educate children all over the country. Effective school broadcast will help a lot in this endeavour.

School broadcast is an effective medium of instruction. This medium generally caters to the ears of students. Programmes of school broadcasts are generally prepared in studios. Expert teachers are engaged in preparation and delivery of such programmes. The programme producer generally has mastery over the content and method and he helps these teachers in preparation of specific programmes. He guides them regarding the quality of recording and broadcast. The radio stations generally have subject-wise planning committees to decide the details of programmes including selection of competent personnel for the purpose.

A radio script is written well in advance so that there is ample time for its try-out and modifications. In ideal situations, a programme is reviewed before it is allowed for broadcast. For effective use of the radio programmes, the teachers are supplied with information about programmes so that they can carry out pre-broadcast, in-broadcast

and post-broadcast activities pertaining to the lesson to be broadcast. Good producers have open mind about their programmes. They invite audience reaction to these programmes and make adequate modification if deemed necessary.

Lessons are made interesting through dramatisation, musical featurisation and such other techniques. Situations can be created in radio that provide an impression of reality. The producer has various instruments at his disposal which a classroom teacher may not have. The school broadcast can make available the most competent teacher on a subject for a number of students studying in various schools in the catchment area of the concerned radio station. Experts in various fields can give talks which can be listened through radio. The experience of various scientists, explorers, etc. can be conveyed well through radio. The poet can well recite and explain his poem through school broadcast. Radio is more effective than television in case of

teaching of phonetics.

There are certain principles that a teacher has to keep in mind while preparing and delivering radio lessons. The script should have familiar words and phrases so that there is no difficulty at the time of recording. It should use the words that can attract learners' attention. A good radio script makes the listener enter into one-to-one relationship with the radio voice. It aims at developing a sense of personal involvement in listeners. The talker should more often use the word 'I', 'you' and 'we' to make the talk more personal, receptive and effective. It is always better to avoid passive voice. One should always use the words that can create pictures in the minds of listeners. Characters used in a lesson should be identifiable by specific voices. While talking in front of the microphone one should talk naturally as if the listener is only a foot away. One should hold the script along side the microphone. During the recording session if the talker makes a mistake, he should pause and then re-read the sentence from the beginning. This helps in editing. The script used by a talker should have complete sentences in every page. The pages need not be stitched so that there is minimum sound. A radio producer uses 'signature music' for various sections of a script.

Certain "do's" and "don't's" are given above. The producers and teachers apply these as far as practicable. In order to make radio lessons more effective, the teachers are asked to perform certain activities during the lesson. At times, they use pictures that fit with the lesson. For instance, in case of a lesson on Andhra Pradesh, the teacher can effectively use the map of Andhra Pradesh and indicate with a pointer,

various places being mentioned in the lesson. At times, film strips, slides, charts, graphs, etc. are also used. These techniques are parts of radio vision. This provides both audio and visual aids simultaneously. Bishwal (1980) in an experimental study found radio vision more effective than simple radio. Radio vision techniques are being used in an increasing manner.

The usefulness of radio has been pointed out by various studies. It has the advantages of cost, time and localisation (Mc Anny 1973). It is about one fifth as expensive as educational television (Jamison and Klees 1975). However, teachers need proper training for effective use of radio lessons.

All India Radio, (AIR) started its school broadcast programme in its Bombay centre in 1929. The attempt was followed up by the Madras centre in 1930. Now almost all centres have school broadcast. Each Centre prepares a detailed programme for a session. The programme pamphlet is sent to schools. Schools are required to have pre-broadcast and postbroadcast activities. In case of certain programmes, teacher activities are suggested by the authorities. The State Councils of Educational Research & Training join hand with AIR in preparing guides for teachers. But the effort has not covered all topics and all subjects. The use of school broadcast has not been adequate. Goel (1982) found that school broadcast units were functioning properly. The school teachers were not utilising school broadcasts adequately. They were also not trained for the purpose. Mohanty (1984) found that teacher trainees at their pre-service training level were not being trained for school broadcasts. The school broadcast, thus has not been given its due place in teacher training

curricula. The result is seen in the field situation. A few days ago, the author had visited a school. He found that the concerned subject teacher had not been allotted the school broadcast class. The teacher was busy in reading a book, while the broadcast was going on. At that time some students were busy in gossiping. The teacher did not bother to switch off the radio after the lesson was over. He continued with

his reading and the radio continued with its own programmes. This may not be universal. But it may be happening in many schools. It is high time that teachers are trained for school broadcast and they are supplied with proper reference materials and broadcast guides at least a few days before the day of the broadcast.

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The school, as such, implies the presence of an intelligent consciousness which, as it were, hovers over and between the outer world and the scholar, which unites in itself the essence of both, holds the inner being of both, mediating between the two, imparting to them language and mutual understanding. This consciousness is the master in this art, who is called master also because for most things he is to point out the unity of things. He is schoolmaster because it is his business to point out and render clear to himself and others the inner, spiritual nature of things.

—Froebel

Developing Self Study Habits

I. SATYA SUNDARAM

The educational system should stimulate curiosity among students, create interest in the study of community and problem-solving. This also develops the capacity to use what is learned in solving problems and improving life. Promotion of self-study habits thus makes the task of acquiring relevant knowledge easier.

The world of today has been experiencing knowledge explosion. How to acquire the relevant knowledge within the minimum possible period is a major problem facing the votary of knowledge. When we speak of 'relevant knowledge', we are obviously referring to that knowledge which helps man either as an individual or as an intellectual solve the problems he is facing. The modern student is greatly worried about the cumbersome syllabus and knowledge explosion. He has to therefore master the art of acquiring relevant knowledge in the shortest period possible.

The modern man is called upon to face innumerable problems which are complex and multi-dimensional in nature. In the past, education was meant for training of the mind and dissemination of knowledge. No doubt, even today education has to perform these two functions. But, it should enable the youth to study and solve the problems emerging from a changing society. Thus, social transformation is the very

domain of education. Education today is at once a creature and creator of social change.

Of course, formal education is not the sole source of learning. The youth learns many things through the environment—the media, the family and parents, unpaid community service, etc. It is for this reason that some educationists argue for de-schooling of education. Outside learning is a series of educational experiences designed to help the student to identify and solve real-life problems to acquire skills and appreciation with which to enjoy a life-time of creative living and to attain an understanding of human and natural sources.

A major drawback of the present educational system is that it has created an impression among the students that learning occurs only in an educational institution under the direction of a teacher within the structure of a course based upon textbooks and evaluated by a series of tests. This

presents only a partial view of learning and education. There are formal and informal channels of learning and indeed the latter influences our thinking more effectively than the former. Failure to realize this has made our students passive, conforming and generally willing to be directed. This trend has to be reversed. Educational reforms should aim at placing greater responsibilities on the youth so that they master the art of using their leisure purposefully. The present educational system too is responsible for making both the students and teachers passive.

There is a plea for diversification of courses especially at the higher levels with a view to bridging the gulf between the school and society. The Vice Chancellors' Conference in 1981 has pointed out two salient features of restructuring of courses. These are: (a) making the first degree course relevant to the local environment and emerging development needs of the community and (b) linking education with work/field work/practical experience and productivity and occupational patterns with development of necessary skills.

Education should no longer be focussed on the learner. Instead it must proceed from him. The teaching process has to become a student-centred activity where a teacher serves as a counsellor, guide and a catalytic agent at his best. It is rightly said that the value of any educational system would lie not in how it has taught the young but in how effectively it has taught them to use learning as a function during their mature years. It is the intellectual curiosity of awe and wonder besides the rudiments of expressive arts (language, fine arts and crafts) that should mark the quality of enrichment.

In order to promote creativity among

students, education especially at the undergraduate and post-graduate levels should be discussion-oriented. The class teacher has to conduct seminars and debates on critical contemporary problems as frequently as possible. Four or five students may be asked to speak on a specific topic which has to be announced sufficiently in advance so that not only the speakers but other students also get familiar with the topic. The class teacher should see that the students do not suffer from biased thinking. The students should be permitted to raise questions which may be answered either by the speakers or by the teacher concerned. This is one effective way of promoting self-study habits among the youth.

At present there is little rapport between educational institutions. The high school teachers live in their own world. This is not conducive for advancement of knowledge either among the students or among the teachers. Teachers in colleges can deliver lectures in high schools for the benefit of teachers and students. This type of interaction among teachers is absolutely essential in these days of knowledge explosion.

Some educationists have been arguing for open-book examinations particularly at undergraduate and postgraduate levels. Under the open book examination system, students have to answer questions by looking into various pages of the text and reference books. This cannot be done unless the students are familiar with these books. The open-book examination system is conducive to promotion of self-study habits among students and the art of collecting relevant material from various sources.

We have been laying stress on self-study

habits only with a view to promoting independent and original thinking. The youth of today should not blindly accept the ideas and institutions handed over to them by the previous generations. They should find some criterion to distinguish between the ones which they can accept and they should and in some cases they must reject.

One serious obstacle to promotion of self-study habits in the Indian context is that parents themselves seldom read books and journals. The use of a foreign medium, the system of un-interrupted lecturing, reliance on notes, failure to read good books have deprived a majority of our students of the capacity for intelligent thinking and expression.

Measures to promote self-study habits can be successful only when certain pre-conditions are created. First, the success of any educational reform depends on dedication on the part of teachers. The instruction particularly at the undergraduate and post-graduate levels should be creativity-oriented. Unfortunately at present both the curriculum and examination systems are achievement-oriented and not thinking-oriented. The teacher of today must encourage conflicting arguments rather than handing out ready-made truths. He has to devote more time and energy to productive and creative activities : interaction, discussion, stimulation, understanding and encouragement.

The student has to be taught to explore

the field of study on his own after he is given the necessary directions and guidance. As rightly observed by Grabo, "man fundamentally prefers to learn in creative ways by exploring, manipulating, questioning, experimenting, risking, testing and modifying ideas and otherwise inquiring." The educational reforms we have suggested would bring out children's originality and creative thinking. Active learning becomes a reality when the learner by himself concentrates his attention on what he is interested to learn and selects, analyses, classifies and organises the stimuli into relations meaningful to him using his past experiences and according to his future needs.

What we learn informally through a self-directed process is likely to be more effective with a higher degree of retention and assimilation. In self-directed learning the youths take active part in selecting goals, organising learning experiences, evaluating progress and redesigning strategies for greater effect. Self-directed learning calls for new methods of teaching. The stress should be on integrating theoretical studies with technical training and practical application and helping students generate their own drive towards their own goals rather than stimulating them to pursue goals set for them by others.

Self-study can be of great help in developing the process of thinking and expressing provided it is done seriously

10/387 Balaramunipet Machilipatnam (A.P.)

Primary Education in Rural West Bengal

A Survey

H. B. MAZUMDER

Above all what is needed is a sense of commitment amongst all concerned particularly amongst teachers. No extra professional activity should stand in the way of their realization of the goals connected with this National tasks of universalisation.

The directive principle of the Indian Constitution which desired universal access to primary education for all children upto the age of 14 by 1960 is yet an unrealized goal even after three decades since independence. Third All India Educational Survey (1975) indicates that even the intermediate target of enrolling all children of the age 6-11 in the primary school system has not been reached in any state or union territory.

It has not been possible to solve the problem of colossal dropout. In West Bengal the position is none the less disturbing. In West Bengal, it was possible to enrol 78.40 percent of boys and girls of the age group 6-11 upto 1979. The dropout rate was high, indicating the magnitude of unfinished tasks of filling in the multi-dimensional gaps in the process of universalisation and in the improvement of quality of primary education. It is necessary to locate these gaps so that realistic and effective strategies and measures for universal enrolment, retention and improvement of quality can be evolved. With the assumption that

quantitative expansion and qualitative improvement cannot be thought of in exclusive terms, identification of various kinds of gaps in primary education in West Bengal was taken up in 1979-80.

Scope of the Study

The study was confined to one or two development blocks in each of the selected West Bengal districts comprising a cluster of 8-10 Primary Schools in 8-10 adjacent villages. The study covered 15, 209 children who studied in 89 schools.

An attempt was made to identify the following types of gaps that existed upto the base year 1978 : (a) Enrolment gaps, (b) Retention gap or wastage, (c) Learning gaps (in curricular subjects), (d) Development gaps (related to development), (e) Gaps in activities related to school community interaction (expected and actual activities), (f) Perception of teachers about role of the community in promoting school community interaction and actual performance by the community, (g) Identification of facilities

available for implementing the curriculum, (h) Deficiencies in the methodological practices used in classroom instruction, and (i) Perception of teachers about role of (a) School inspectors and (b) Block development officers in promoting education and actual services rendered by them.

The study was structured into 14 specific questions. The related data were collected from the schools, related homes, social workers, Anchal Pradhan, BDOs and local school inspectors with the help of tabular proforma, comprehensive questionnaire, opinionnaire and a check list which were specially constructed.

Summary of Findings

The study reveals that there is still a long road to go to reach the goal of universalisation upto the age of eleven. The enrolment varies from 57.5% to 80% with an average of 69%. The average percent of girls enrolled 59.10 as against 78.8% in the case of boys. The disparity indicates absence of determined attention to enrolment of girls.

Although the dropout rate (27.04%) is a little encouraging in comparison with the National situation (10% dropout), it has not been possible in the state to stop dropout in rural areas. The percent of dropout in repeaters is quite high (38.89%). It has been found that there is a high and positive correlation between enrolment and family income and between family income and retention. This suggests that economic status of the family acts as a constraint. It may be solved if inputs embodying economic gains both in the formal and non-formal sectors, determine the pattern and process of primary education, particularly, for the weaker sections.

Progress of primary education in the rural areas of the different districts has been extremely uneven. Imbalances in development in the districts have to be removed and particular attention has to be given to Purulia.

Although, the study indicates that there has not been any significant relationship between adopted measures for promoting school-community relation with enrolment and retention, there could have been better enrolment and retention if adequate measures for universalisation enlisting school-community cooperation were taken by the concerned people thereby reducing the gap between desired goal and actual performance.

It is contended that the holding power of a primary school is dependent on a few variables, for example, (a) A life centric and relevant curriculum, (b) Introduction of play and activity methods, (c) A system of continuous formative evaluation and (d) Happy and joyful community living in the school. It may be recalled that primary education in West Bengal was reorganised soon after independence keeping the above components in view. Although there have been two categories of schools in the state, namely Jr. Basic schools and primary schools, the curriculum has been the same for both the types of schools and teachers are the products of the same system of a thoroughly remodelled system of teacher training.

A wide gap between curricular expectations and curriculum in transaction has been noticed. Active involvement of children in learning is made in 28.4% schools, project method which centres around pupil activism is followed in 9.17% schools, craft centred approach in 9.1%

schools, observation techniques are followed in 5.7% schools. Drama and playway approaches are either rarely used or not used at all. Children's literary meetings (sahitya sabha) which offer outlet for active self expression, community living for development of social skills and attitudes are almost absent. These activities and experiences were given a good deal of emphasis in the new curriculum for linking education with 'total' child development. A look at the survey of teaching methods, devices and approaches will at once lead one to conclude that inspite of a good curriculum, there has been very little movement forward during the three decades in fulfilling the aspirations of educating our children for an emerging social order.

It has also been found that the practice of continuous development oriented evaluation has not been followed in the schools. The defective system of examination prevalent in the schools may have been responsible for the significant gaps between teacher's expectations and children's actual scholastic performance. Not a single school has maintained any record of personality development. From this, it may be concluded that teachers pay little attention to the development for personality traits—a very important aspect of 'total development' which is the professed objective of the new curriculum. This is a very important gap, particularly in child education which needs to be filled in by totally reorganising the school life and the instructional practices where formative evaluation is an integral part of the teaching-learning process.

In regard to the facilities the study reveals that even minimum facilities are not available in the primary schools. Sufficient

classroom accomodation is available only in 19.3% schools. As many as 18.2% schools have no school buildings at all. Only 27.7% of the school reported that they were adequately staffed. In 73.86% schools have blackboards (the only most used teaching aid) as against 39.7% taking the country as a whole. The curriculum in vague is activity oriented with due emphasis on active learning, creativity and productivity, health education, physical education and games. Facilities needed for these activities are almost absent, 39.7% schools have arrangements for drinking water, 5.68% schools have latrine and urinals and no schools has any seating arrangement for children. Community support for these facilities or an attempt for local resource mobilisation is never tried by teachers. The situation reveals utter lack of concern for the children and for their schools in whose care the destiny of the future society is being shaped.

If it is considered that the curricular objectives, curricular content, educational process and the organisational facilities are integrally related then the study will reveal that many of the objectives of Primary Education have remained unrealized leaving gaps between activities planned in the printed curriculum and activities actually performed.

Suggestions

The study reveals that there are multi-dimensional gaps in primary education as it is being implemented in the rural areas of West Bengal. The major task of primary education lies in the removal of these gaps so that every child irrespective of socio-economic status has an access to primary education and is ensured of that quality of primary education which helps him to grow up as an integrally developed person as well

as a useful citizen of the emerging Indian society. In order that the primary schools may achieve the twin objectives, it is necessary to prepare the teachers adequately for performing their various roles. The teachers must perceive that they have variegated roles to perform in the schools, in the classrooms and in the communities in which the schools are situated.

The study reveals that the teachers and the community members and even supervisors are not aware of the various measures which have been recommended from time to time for better enrolment, improvement of quality, school-community relations for mutual benefit and they do not appear to have taken up any programmes and activities in these directions. In addition to providing minimum essential facilities and strengthening teacher prepara-

tion, both pre-service and in-service, the first immediate task next in importance appears to lie in developing awareness of the needs of primary education in terms of its universalisation and qualitative improvement in teachers, administrators, curriculum planners, teacher educators and the public. Development of a system of decentralised system of supervision as an in-built infrastructural component with its focus on helping teachers in their in-service growth, curriculum development for relevance to local needs and periodic evaluation is also an immediate need.

It is too idealistic a suggestion but without it perhaps primary education cannot be lifted from its present plight and saved from its time worn problems of non-enrolment, non-retention and wastage.

"The teacher must throw his whole force into the tendency of the taught. Without real sympathy we can never teach well. Do not try to disturb the faith of any man. If you can, give him something better, but do not destroy what he has. The only true teacher is he who can convert himself, as it were, into a thousand persons at a moment's notice. The true teacher is he who can immediately come down to the level of the student, and transfer his soul to the student's soul and see through and understand through his mind. Such a teacher can really teach and none else."

—Swami Vivekananda

Projection of School Enrolment

ADEYEMI AKINSANYA

The public school enrolment all over the world has grown at a very high rate since the end of World War II. Growth in population is bound to affect schools. Estimates from UNESCO indicate that schooling is available for only about 45 percent of the world's 550 million children between the ages of five and fourteen, ten years ago.

Enrolments figures at best are rough approximations because not all the countries of the world compile data on public schools. The ratio of non-public to public school students is not uniform all over the world. The higher percentages of non-public enrolments of total enrolments in the United States of America (USA) occur where there are concentrations of Catholic populations or long traditions of independent or private school attendance among many families.

The enrolment gains in the '50s in the USA for an example, were recorded in the elementary schools and relatively smaller gains were recorded at secondary level in the same period. The same trend was true for Lagos, Ogun, Oyo, Ondo, Bendel, Anambra and Imo States of Nigeria where enrolment gains have been recorded both in the elementary and secondary schools levels during the past three to four years (1979-83). But significantly, larger increases were noted in the USA at the secondary level in the last of the 1960s and relatively

more modest gains were registered for the elementary grades. Part of increase in public school enrolment in the USA could be traced to compulsory education laws.

Growth in enrolments in non-public schools in some countries has been reflected in increases in the numbers of non-public school teachers. School enrolments are expected to grow in any dynamic situation where the population continues to increase or the school system is progressively expanding such as employing of staff, transportation, food service, site acquisition, building programmes and budgeting or where both or all of these developments take place.

On the contrary, where population growth or school expansion is arrested in any temporary or local situation, then the number of children attending school may remain unchanged or show signs of decrease. From the above developments, it could be said that the factors which basically determine the size of the future school going

population are the anticipated expansion of the school which may result from other developments than the actual growth of the population and the expected growth of the population.

In order to estimate the size of the future population, it is necessary to take into consideration the specific rates of death for each sex and at each age. Special attention must be given to the population in the school-going age population from country. In most of the developing countries, it is very difficult to project the future enrolment in schools because since education is not compulsory by law or where legal provisions for compulsory are not fully carried out, then the number of children attending school will depend on the choice and convenience of parents, the possibilities of employment for children and for adults with carrying amounts of schooling and the availability of school facilities.

From different studies done in some of the developing countries, (i.e. Nigeria, Table I below) it was revealed that the proportion of girls attending school is considerably lower than the proportion of the boys.

Secondary School Enrolment*

State	Male	Female	% Female
Bauchi	21,903	4,768	17.9
Kwara	60,116	36,530	37.87
Ogun	74,519	61,713	45.3
Plateau	30,822	12,452	28.7
Sokoto	30,344	7,613	20.1
Lagos	105,558	91,747	46.5

(*Extracted from unpublished Data collected by Nigerian Educational Research Council, Lagos, 1982).

Emphasis on the education of girls will automatically increase the total number of children enrolled in school. Information could be got regarding enrolment from U.S. Census Office (if it is USA) or other countries Census Offices, Bureau of Institutional Research, Registrar of Deed Records and Publication of Migration of Students (mostly used in higher education).

The estimates of future school enrolment can help the school administrator or policy maker in shaping the educational development of a country. Depending on the particular needs of the school administration or educational planner, school enrolment may have to be estimated from a time period ranging from one year to twenty years or more. It is advisable then to draw up estimates of future enrolment for at least ten to fifteen years—just about the length of time it takes for a pupil to progress through the school system.

There are many ways of projecting future school enrolments, few of these are : (i) Enrolment ratio method, (ii) Curve-fitting, (iii) Regression Correlation, (iv) Cohort—Survival method : (a) Mean annual arithmetic, (b) Mean annual percentage change, (c) Mean annual percentage change with the highest and lowest years excluded, and (d) Mean annual percentage change with any highly deviant year excluded.

The Cohort or Survival Method requires data on pupil enrolment by grade/class for at least as many years as the number of grades/classes at the given school level, if possible also the number of new pupils and repeaters by grade/class.

The Survival Method uses four bases for direct projection that is based on trends in the data for the first grade or class one during the period covered by the data that are being analysed.

As for the Ratio Method, this is based essentially on the projection into the future attendance, required estimates of population by sex and age and either school attendance data (from survey of census) or school enrolment data (from current school statistics) also by sex and age. It appears that enrolment data by level of school are always necessary, additional information on distribution by grade is desirable as well as distribution by urban and rural schools by private and public schools at each level. The Cohort or Survival Ratio Method is most useful in both the elementary and secondary schools levels.

The Regression Correlation Method is most efficiently used when a large school population is considered. Although it is more expensive to use this method, it does pay to use it on large school enrolment population.

In most of the developing countries (Colombia, South America), the Cohort or Survival Method is most common. In Philippines, the school attendance ratio method is used because the enrolment data for school attendance are not adequate. The error of estimation is much greater by the ratio method than by the Cohort Method. It should be noted that the methods used to project future enrolment could be adapted to suit local conditions and circumstances.

In New Zealand where compulsory schooling is enforced for all children between the ages of seven and fifteen, the principal factor determining future school enrolment are :

- (i) The estimated size of school age population
- (ii) Estimating the enrolment ratio specific for age
- (iii) Estimating secondary school enrol-

ment for projected survival ratios

- (iv) Adjustment of projected ratios to obtain identical totals
- (v) Linking of survival ratio with enrolment ratio projection
- (vi) Estimating the total school enrolment by age of pupils
- (vii) Estimating the "school survival" ratio through the secondary school cause.

As for the French, the projection methods consist of :

- (i) Estimating the distribution of second level enrolment between the general secondary and vocational schools
- (ii) Estimating the proportion of secondary school graduates entering universities faculties
- (iii) Estimating the future population by age groups separately for first level (primary) and second level (secondary) education
- (iv) Estimating the future population by age groups and
- (v) Estimating the distribution of future enrolment between public and private schools.

It appears therefore that the Cohort or Survival ratio method is widely used by most countries (developed and developing) but method of projection varies from country to country. Enrolment projections are somewhat more critical in circumstances where people are free to pursue education as they choose. For example, in countries having limited facilities, some restriction in choice must be made and consequently the projection is easier to make or prepare and somewhat more critical in circumstances where there is considerable mobility of population. Each method is more effective in certain area than others and could be adapted to suit conditions and circumstances that prevailed in that area.

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THE PRIMARY TEACHER

Evaluating Educational Outcomes

PRITAM SINGH

Most of the teachers do know that evaluation is used to measure students' achievement but very few teachers are aware of the fact that evaluation can be used as a teaching device for improvement of their learning.

Educational outcome is defined differently by different educationists and psychologists. It is considered equivalent to an educational objective which may be defined in terms of learning outcomes or pupil's behavioural changes or expected outcomes of learning. However, teachers normally conceive of educational outcomes in terms of pupil's results which may or may not be in terms of their real learning. If as a Principal, one looks at the total school environment in which learning takes place and for which the Principal and administration is responsible, one cannot simply judge efficiency of the schools in terms of results at the board examination. Since, every school has a different social and learning milieu, the instructional impact has to be judged in terms of both product of learning as well as process of learning.

In addition to student's achievement, there are a number of co-curricular activities and projects undertaken by the school which need to be judged in terms of their

relevance and effectiveness. Teacher's development and growth itself is another cogent objective of any educational programme. Unless teachers develop positive outlook and improve their technical efficiency, they cannot contribute more and more to promote and enhance student's learning. Thus student's learning, instructional efficiency, programme effectiveness and staff development are some of the major intended educational outcome which may perhaps be more relevant than student's results in percentages. Education is no more equated with schooling but is a growth oriented concept that permeate the whole learning milieu of the school and is concerned with the total development of students as well as with such factors which directly or indirectly effect his learning or achievement.

Nature of Educational Outcome

There has been a number of taxonomies of educational objectives which attempted to categorise the educational objective

vis-a-vis educational outcomes into various categories. It is convenient to refer to the most usable Bloom's taxonomy of educational objectives which categorises the major outcomes of learning into cognitive, effective and psycho-motor domains. Accordingly, three types of taxonomies are available.

Among the Cognitive taxonomies those of Bloom, Gagne, Madaus, Guilford, Hannah and that of NCERT can be quoted. The maximum used and validated taxonomy is that which is adopted by the NCERT. This taxonomy classifies educational objectives into knowledge, understanding and application objectives each of which in turn is further sub-classified in terms of developed abilities like those of translation, interpretation, comparison, extrapolation, analysing, hypothesising, predicting, judging, etc.

These taxonomies provide good framework for identifying educational outcomes in the three different dimensions. What is needed is to understand their role in providing direction to educational programmes, activities and evaluation besides enabling the teachers to appreciate the interaction between educational outcomes, teaching learning strategies and evaluation. The more clearly and realistically the educational outcomes are cognised by the teacher the more easier it becomes for them to use relevant teaching learning and testing strategies in the classroom to promote student's learning better.

Components of Evaluation

From the above analysis of educational outcomes it is quite evident that while vitalising any evaluation programme in a school the Principal should indeed remain cognizant of the fact that evaluation is a total school concept which intimately con-

cerned with the improvement of student's learning, programming effectiveness and teacher's development. It is easier to state this phrase but very difficult to implement. It involves a complete understanding of the ecology of evaluation which is intimately connected with educational outcomes and instructional process on the one hand and with the product of learning and feedback on the other. Therefore, a good evaluation programme requires evaluation of the educational objectives, evaluation of instructional process, evaluation of student's learning and evaluation of curriculum itself, besides teacher's own growth.

We have to judge the educational efforts in terms of student's learning vis-a-vis their achievement in various subject fields. We must do it and continue doing it. All outcomes of learning are the result of teaching effectiveness and efficient organisation of the school educational programmes which are geared to the attainment of intended educational outcomes formulated at the planning stage

Techniques of Evaluation

Although there are innumerable tools and techniques of evaluation, all of them can be classified into four major techniques, viz. testing, observation, inquiry and analysis. Each of them involves a number of tools. In a school both testing and non-testing techniques are usable. However, it is a hard fact that non-testing techniques are generally relegated to the background and testing alone has come to stay. If the school is interested in improving student's learning, it is necessary that a teacher must be cognizant of the role of affective behaviours in improving student's achievement and accordingly provide the needed social and learning milieu to develop these behaviours.

In any instructional system, besides cognitive behaviours, the relevant affective and psycho-motor entry behaviours not only help in motivating the learner but also help in improving student's learning. It is because they form the part of input in the instructional system and at the same time come out as learning outcomes in the form of product of learning. Non-testing techniques especially observation is very useful and practicable technique for observing student's behaviours especially at the elementary stage. What is important to note is that such observations should be well planned, systematic, recorded and aimed at the specified outcomes formulated in advance. Interpretation of evidences that accrue from observation should, however, be done continuously.

In an instructional system, we can identify three phases of evaluation, the diagnostic phase, the formative phase and the summative phase. The first one is concerned with finding out the adequacy or inadequacy of pupil's entry behaviour and aims at placement of students in learning continuum. The second one is developmental phase and is concerned with use of evaluation as a teaching device and aims at adaptation of teaching learning strategies and feedback. The summative phase is concerned with certification of student's improvement in the instructional process, can be made during second cycle of instruction. The major concern of Principal should be to provide readymade tools of evaluation having needed proper validity and reliability. In fact, what is required is to make evaluation an integral part of the teaching learning process, so that evaluation could be used as a teaching device more frequently than as a judgemental device.

Ensuring quality of evaluation instrument is the major problem of the teacher and, therefore, the best solution is to get the evaluation material made by some external agency or through experienced teachers and then provide readymade test material to the teachers.

Emerging Trends

Of late there has been a lot of criticism about misuse of examinations. Since examinations are treated more as an objective than as a means, the whole educational apparatus is geared to improving the results rather than improvement of student's learning. This has created an erroneous belief among the teachers and students alike that evaluation has only judgemental role to play and is aimed at classifying student into various categories like failures and passes, first, second and third divisioners. Have we ever thought whether it is desirable to use the same measuring rod for all students studying under different conditions of learning in different institutions with differing backgrounds and inputs?

Besides improving the quality of instruments another emerging trend is the mastery learning approach which calls for criterion referenced tests that aim at judging the students in terms of specified intended learning outcomes. These tests help in identifying gaps in learning and at the same time provide useful data to know whether the students have reached upto the intended mastery level pre-determined in the form of instructional outcomes.

For making evaluation an integral part, it is essential that there should be continuous assessment throughout the year and it may be a cooperative enterprise. This is essential for diagnostic evaluation especially at the elementary stage where judgemental

role of evaluation is to be relegated to the background. It is for this reason that demand for diagnostic testing is gaining ground. Another emphasis which is being laid is on the individual evaluation in preference to group evaluation for which unit teaching approach is usually recommended. Individual achievement cannot and need not be compared because of the difference in the background of student's antecedents and educational experiences. Perhaps, the most important aspect which is highlighted these days is the feedback aspect of evaluation.

Modern Evaluator

Evaluation is a total school concept and cannot be equated with examination. Evaluation has to be considered as a dynamic concept emphasising the use of evaluation as an integral part of teaching and as a feedback device for improvement. Improvement of student's achievement and not merely measurement of achievement is the focus which the modern evaluators have to keep in mind. Evaluation is no longer considered merely an information gathering process followed by judgement making. The trend is to consider it as an ecological concept which emphasises interaction between evaluation and other components of the educational process thereby establishing

a homeostasis in the whole teaching-learning process by adjusting and adapting the ends and the means in the educational process.

Principal's Role

At this stage, it can be visualised that in order to evaluate educational outcomes in an unbiased and objective manner, long-range and short-range planning of evaluation programmes will have to be visualised by each Principal. This would involve not only the mode of evaluation but also the frequency, the tools and techniques and use of evaluation data. Secondly, the teachers will have to be oriented in the new concept of evaluation and more so for using evaluation as a teaching device. Ultimate objective is to get the students examined at various stages by using quality material which indeed are the quality questions that form the basis of good testing. Therefore, the need for question bank at the teacher's level in various subject fields cannot be over-emphasised. Perhaps the Principal would have done his duty if he could provide at the school level a good quality bank in various subjects to his teachers and motivate them to use that material effectively for evaluating their students and providing diagnostic data for further improvement of student's learning.

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Evaluation of Interests

S. L. MAKKAR

Good teachers since the dawn of civilization have fully recognised the importance of making school work and school subjects interesting. In order to be more effective in teaching, the teacher should know and evaluate the interests of his students at different age levels.

Knowledge of interest is probably a pre-requisite to work effectively in developing new interests and motivating the children to learn quickly and in retaining the classroom instruction. The efforts of the teacher will be useless until he motivates the students in arousing their interests.

According to MC Dougal, "interest is a stable quality of an individual. Interests are thus positive in nature. A high level of interest in any subject means a positive acceptance and energetic attitude towards it whereas a low level of interest indicates a passive and unfavourable attitude towards a particular object. Interest is a motivating force that sustains and regulates a concentrated effort."

The teachers who understand and have a thorough knowledge of the factors which create interest in the children and the factors which serve as stumbling blocks in learning and making the school subjects uninteresting, will be doing and rendering good service to the students both at primary and secondary level. The teacher should try his

level best to discover the causes for lack of attention and interest.

Factors Affecting Interests

I. Age and Sex : The relevant literature with respect to children's interests, there are certain general tendencies which seem to hold true for specific age-groups. The teachers should make use of these natural tendencies of the students while teaching them at the primary and secondary levels. For example, children between 5-7 years like to play in situations in which 'rules of games are not very rigid'. Children between 5-6 age-group seem to ignore sex while choosing play groups. By ten, the interests of children are expressed in their play—way activities and sex differences are apparent. Boys prefer more adventurous, mystery and science stories whereas girls continue to show some interest in animal stories and become interested in romance and domestic affairs. By twenty, vocational interests both in boys and girls become specific and are fairly stable in later life also.

2. *Physical Development* : The teacher can also evaluate the interests of his students keeping in view their physical development. The students who are physically strong would like to take activities which demand physical strength. Therefore, the teachers can choose the subject to be taught in the classroom depending upon the physical development of their students and pupils.

3. *Intelligence* : The teacher can guide his students in choosing the classroom subjects for their future career. Due to natural tendency, the children with greater intelligence would like to learn these things which are done along with greater facility than those of less intelligent. Bright children participate more in those activities which require thinking and reasoning for vocational interests of students of higher intelligence who differ from those children of lower level intelligence.

4. *Learning of Interests* : Interests are learnt. The interests emerge and grow out of the experiences conducive to the satisfaction of the pupil's need. The experiences which are meaningful, significant and successful have cumulative effects of learning and are reflected over a period of time particularly in every activity of a child. When children grow in age, they perceive the situations which provide rewards and punishments episodes. This means that interests develop with age due to learning.

5. *Cultural Differences* : Cultural differences are responsible for creating interests in children. There is certainly a different treatment which is given to boys and girls depending on their social milieu. They are

dressed and expected to behave differently. The girl students are expected to behave as ladies. They are expected to behave in accordance with the cultural expectations of society. Similarly, differences in interest are also expected between the students brought up in urban, semi-urban and rural environments. The interests vary on the choice of their professions depending on their background orientations.

6. *Wishes and Ideals* : Wishes and ideals of pupils influence their interests. These wishes and ideals of the students are affected by providing them pleasant learning experiences. Thus, learning experiences and schools both influence the interests of students.

7. *Economic Status* : The teacher can assist the students in creating interests in the choice of their professional career. The students belonging to the families of higher economic status would seem to be interested in those professions which require not only intelligence but also the financial inputs whereas the students of lower family economic status would prefer to go in the professions which demand less financial requirements. Thus, the teachers have a vital role not only in students interests for the activities and professions but also pursuing and sticking to them for their later life also. Evaluation of the interests in the students even at their primary and secondary level will avoid frustration and restlessness among them.

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Creativity in Typing

PRABHAKAR RAIZADA

'Art in typewriting' is a useful subject in life. A typist can become an artist. This art is both interesting and useful. It is a motivation device for typewriting students. This art should be included in the syllabus of typewriting as it serves the purpose of a superior type of illustrative aid.

Today the typewriter is a very useful machine which has brought about a great change in office procedure but there are very few who are really conversant with the recent developments in the field of typewriting. Very few persons can imagine that a picture or a design can be constructed on a typing machine. The author is of the view that a study of art in typewriting may prove very useful in the field of typewriting education. This is an interesting art and every typist in some way or the other has to use it in his daily typing duties. But the main drawback is that he has not learnt this art in the classroom. It may be possible that he might have acquired this skill by experience while performing his day-to-day typing duties.

Therefore, the present article mainly aims to study the various methods of artistic typing and to explore the possibilities to include this art in the course of study. This may be considered as an original contribution of the author to the accumulated fund of human knowledge.

Typewriting consists of a combination of skill and art. The second subdivision depends upon the ability of the typist to

display the typescript in an attractive and effective manner. The lines of letters and figures can be arranged in a certain attractive style. After the mastery of the keyboard pupils may be instructed to type simple designs and pictures. This is, perhaps, an absolutely new branch of skill.

'Art in typewriting' may be defined as an art of operating a typewriter so as to construct beautiful designs or pictures. This art may be applied for typing various types of pictures to decorate drawing rooms in general and classrooms in particular. Coloured pictures may also be typed by using carbons and ribbons of different colours. The importance of knowledge of typewriting has been universally acknowledged but the art in typewriting has further increased its utility to a great extent. It has opened new doors for a typist to become an artist. It will be useful and at the same time interesting to students if this part of knowledge is included in the syllabus of typewriting. It adds to the efficiency of a typist to earn more money by creating a market for artistic typing. This type of work can be done during the typist's leisure hours.

Classroom Utility of Artistic Typing

Artistic typing can sometimes be used

as a motivation device. The student should not be required to practise when he is disgusted with his performance. To motivate the students the teacher may start artistic typing. In such typing, line by line instructions are given for making a variety of designs on the typewriter.

Before the beginning of the next class, the teacher should set the margins, insert the paper in each machine to save time and then explain how to prepare designs on the typewriter. The students will become so interested in what they do that they would almost race as they stroke, space-snapping their keys and spacing quickly. It will be an entirely different class from the one that left the room the previous day. Everyone will be in a hurry to complete the design. These people need to see immediate results. A little picture puzzle should be a project to be started at the beginning of the class period and to be completed in less than five minutes. By completing the design the students will feel that they have 'done something'. Every student will move with a fluency that is far superior to that has ever before been revealed. Obviously, the class will make progress.

Art typing may be done once or twice a week, depending on the mood of the class. Some of the students will learn how to use the tabular key, so they are not required to count so many spaces. By the end of the month, the entire class will know how to set margins, how to centre the paper both vertically and horizontally and how to tabulate without any difficulty. The art typing should be discontinued as a regular routine and only used as a change of pace when the routine procedures appear to make interest lag. As a result of this the group will be highly motivated and, there-

fore, will work diligently at perfecting their skill in typing. So art in typing may be included as a standard aid in all the typing classes.

Artistic typing trains the eyes to measure space more accurately.

Artistic typing cultivates the pupil's judgment, his artistic ability and his good taste. It also increases one's originality to function. It may serve the purpose of a superior type of illustrative aid and may become more or less a hobby for certain persons. This art can be used for typing cover pages for manuscripts and borders for decorative purposes. It may be better utilized by one with artistic bend of mind.

Methods of Constructing Designs

To acquire this skill the students are required to put in regular and concentrated artistic typing work for a month or so. The knowledge of vertical and horizontal placement is utilized for creating design on a particular sheet of paper. Paper arrangement for a picture or design requires an exact estimate for the up and down placement.

The student must learn to judge the space. These estimate plans take some time but in the end they save a great deal of time that would be spent in retyping. Computations involved in artistic typing are not difficult. Every line must be accounted for in the estimated formula of constructing a design, it can be used by the students at any time for typing the same design.

Some of the methods of artistic typing are given below :

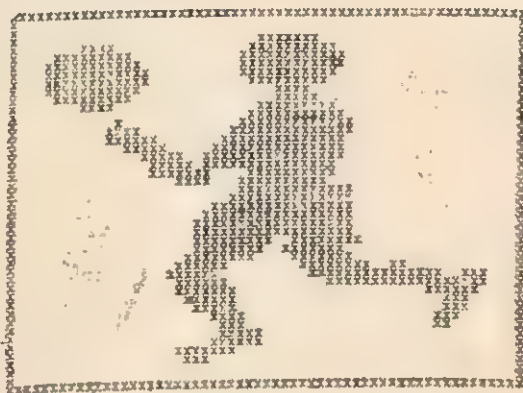
(i) Carbon Copy Method : Prepare a carbon copy of a printed picture on the typewriter and then derive the formula by calculating line by line the keys involved.

Suppose you have a foolscap size picture of 'Skating'. For preparing a formula for typing it, first bring out a carbon copy of it on your typewriter. Properly insert the picture with carbon and paper and then strike, line by line, the dark keys like (x) for all the dark-black spaces, light signs like () for all light-black spaces and the space-bar for blank surface leaving proper margins on all sides. After typing the whole picture estimate the calculations involved regarding the number of a particular letter or figure or sign typed in each line. The formula thus drawn may be used in the class for typing rapidly and line by line the same picture.

(ii) Pencil Drawing Method : Drawing a picture or design on the paper with the help of a pencil or pen and then prepare a carbon copy of the same on the typing machine as shown below :



(iii) Graph Paper Method : Draw a design or picture on a graph paper and then derive the line by line formula for typing the design or picture direct from the graph paper by calculating line by line keys involved.



(iv) Graph Drawing Method : Draw a graph on a big size picture and then estimate the calculations involved line by line. The formula thus drawn may be used for typing the same picture.

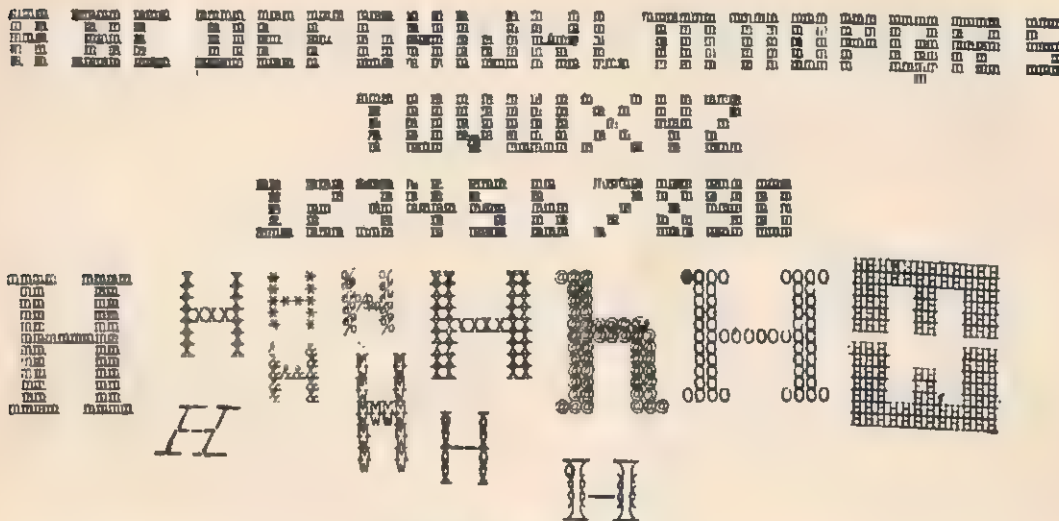
(v) Variable Spacer Method : A picture can be typed without a formula using variable spacer wherever necessary in order

letter and the number of blank spaces between letters.

Prepare a scrap-book of as many different types of alphabets as possible. These alphabets prove their worth time and again on the job when that 'extra spacial' something is needed for filing cabinets, for a title page on a special report, etc.

(vii) **Display Letters :** Study the alphabets and numbers illustrated on this page. Note the width and height of each display

In displaying typewritten material, typists sometimes desire to give an attractive touch to programmes, menus, title pages and notices. Some such samples are:



A SAMPLE OF THE LETTER "H"



Tailpieces :

0000 0 0000

-----8888*00*8888-----

[illegible][illegible]

A Gifted Child : A National Asset

K. SRINIVASA MURTI

The public in general and the Government in particular are aware of the importance of resources like coal, petroleum, energy, food etc. but there is another important resource that is ignored and neglected. That resource is 'the gifted' or the 'talented' child

Explaining the importance of talent the authors of Agenda for Action (NCTM 1980) said "The student most neglected, in terms of realising full potential, is the gifted student of mathematics. Outstanding mathematical ability is a precious societal resource, sorely needed to maintain leadership in a technological world." The plight of great Ramanujan is quite well known.

Terman (1925) remarked : "It should go without saying that a nation's resources of intellectual talent are among the most precious it will ever have. The origin of genius, the natural laws of its development, and the environmental influences by which it may be affected for good or ill, are scientific problems of almost unequalled importance for human welfare."

The above two statements clearly indicate the importance that educators and researchers gave for the gifted. But the real state of affairs is otherwise. Greenes (1983) deplored the limitations imposed on the educational system in the United States. He mentioned two causes (a) limited finan-

ces and (b) scarcity of good mathematics teachers. If such is the case in a country like U.S. one can imagine the state of affairs in a developing country like India.

There is a wide-spread belief that the gifted are eccentric, but it is wrong. Goldberg (1965), Gallagher (1975) came to the conclusion that gifted children possessed the same personal characteristics as the average children. They fared better than the average on measures of physical characteristics, emotional stability, control of anxiety, and the ability to make friends.

The differences between the gifted and the average are more marked in the cognitive domain. The mathematically gifted possessed certain characteristics. According to Krutetskii (1976), the gifted possess (a) swiftness in reasoning, (b) tendency to abbreviate reasoning, (c) quick and comprehensive generalisation, (d) tendency to deal in the abstract, (e) flexibility in thinking, (f) need to find the most elegant solution, (g) tendency not to tire when doing mathe-

matics and (b) tendency to view the world through a mathematical eye.

If we examine the courses, textbooks and the teaching in our schools in the light of above mentioned characteristics of the gifted, we find they are inadequate in many ways. All the students have to study the same course through the same period. In this way the special needs of the gifted are ignored.

To meet the needs of the gifted, the curriculum must be broader, more in depth and more flexible. The instructional programme should be suitably changed. There must be provision for independent pursuit of mathematical topics. By adopting special measures, we can save the gifted in our schools.

—MGH School, Guntur

He must have no vices himself and tolerate none in his pupils. Let him be stern but not melancholy, friendly but not familiar lest in the one case he incur dislike, in the other contempt. He must constantly dwell upon the honourable and the good; for the more he admonishes his pupils the less he will require to punish them. He must never lose his temper, yet he will not pass over what deserves correction; he must be simple in his teaching, able to endure hard toil, persevering rather than exacting.

—Quintilian

The Art of Story-telling

GOPAL SHARMA

Story-telling is an art in itself. Every one may tell stories but every one cannot charm young ones. The story and its content does not matter much to them. The manner by which it is told is more important than the matter.

Children like to listen stories. Their love for stories starts from home. Lullabies whispered in a child's ears to make him quiet are nothing but stories set in music. Grandmother's surprise stories teach him righteousness and civic sense. The children never get tired of listening stories of great adventure, valour, wisdom, humour and wit. Mushroom growth in *chitra-kathas* reveal their unsatiable thirst for stories. This can be a helpful device in teaching knowledge subjects.

A story will help in more than one ways. First it will help in capturing attention of the children who cannot concentrate on something for a long time. Secondly, we shall be able to inculcate the qualities of leadership, companionship, honesty and patriotism in them. Thirdly, this technique will break the monotony of the class. It will add variety and fun in our teaching methods.

Teacher who wants to narrate the story in an effective manner should keep the following points in his mind :

(a) Why does he want to tell the story ? i.e. the purpose of story telling should be clear to him. He should know that the purpose of teaching anything is to integrate a child's personality and the aim of a story can be the development of willpower and integrity. A story can also purge the morbid element of pity and fear.

(b) Who are the listeners ? The teacher should understand their physical, mental and emotional development. A story enjoyed by teenagers may not be understood by the primary school children.

(c) Does the story suit to the occasion ? i.e. the teacher should select a story suited to the occasion. He should tell the stories which are based on festivals, seasons, anniversaries of great men and women and promote National integration. Real life stories are better than stories of ghosts and wizards. Animal and bird's stories are liked by children in the age group of three to six and stories full of imagination and adventure are liked by children in the age group of six to ten.

Once the teacher selects a story suited to his audience and occasion keeping in view the time limit, he should try to observe certain points as given in the following paragraphs.

The teacher should not read and dictate a story. Nor he should show undue haste in telling a story. He should make the listener feel the story. He should dramatise the story with the help of his gestures, movements and actions. He should modulate his voice according to the mood of the characters. He should pause and ask questions when some passive and lazy listeners do not show any sign of interest. He should walk in the class patting one child here, another there to make the atmosphere lively. But he should not walk like a tiger out of cage to terrify the class.

When we shift to a visual mode while telling a story, we find children more receptive and the story is better retained. Popular audio-visual aids such as tape-recorder and slide-projector can be used. It will be an enjoyable experience if we make use of dolls and puppets. The use of pictures, charts, cut-outs and puzzles can be effectively done to arouse interest.

Narration is not the only way to tell a story. The teacher can tell children to enact it. There is no need of costumes and make-up. They can be asked to role-play it. This will be an enjoyable experience for them.

Story-telling should never be a pass-time activity. We should aim at some objectives. The objectives can be simply to teach them some morals. It can be a listening com-

prehension exercise. The objectives can be fulfilled only when the teacher asks some questions and make them attentive. The questions can be pre-planned. Abstract and vague questions should never be asked. The questions which can be answered in 'yes' or 'no' should be avoided. The children should be able to answer in full sentences. He should ask probing questions which motivate children to go deep into the depth of the story. There is no harm in giving hints. He can prompt them several times but the answer should come after proper thinking and understanding. Even the laziest child should be asked to reply. The question-answer-session should be short but meaningful. The teacher can ask questions in between the story to test their attention and interest in the story. The story-telling session should end, with a happy note. The teacher should leave the class satisfied and elated.

One note of caution. Teachers who tell stories in the mothertongue are liked by the class. No show of scholarship by way of verbosity is needed. If the class has no uniform mothertongue and most of the pupils understand a second language, the teacher should control his language carefully according to the level of the listeners understanding. But the use of foreign language does not mean the stories from the foreign land, primary children should preferably be told about their own National and cultural heritage. At a later stage, stories from other lands are also welcome.

Kendriya Vidyalaya, Bangalore-560022.

News and Views

Open School Experiment in Jammu & Kashmir

Keeping in view the difficulties faced by the students in the examinations due to incompleteness of prescribed syllabi, the J & K Board of School Education has started an Open Experimental School within the premises of the Board. Prof. Inderjeet Singh, Chairman of the Board of School Education laid the foundation stone of the project. The School would be upto primary level in which four subjects would be taught by single teacher in one room. By doing this the shortcomings of the school in far-flung areas would certainly be rectified. Besides the routine work, the Board of School Education will give more stress on Open School System. This will also create job opportunities.

Workshop on Gandhian Peace Study

The Department of History, University of Jammu held two-day Workshop sponsored by University Grants Commission on Gandhian Peace Study. Governor Shri Jagmohan inaugurated the Workshop. The centre will develop library and research facilities for peace study not only in theoretical sense, but also in practical ways to have an active need for day-to-day happenings in society. The Centre will

work in collaboration with various National and international agencies, some of which have already offered an active support in the pursuits.

While addressing the Workshop Shri Jagmohan said "Maintenance of peace has always been important but now the issue has assumed crucial importance. It is no longer a question of avoiding human sufferings but of ensuring human survival. He said peace cannot come simply by wishing it. The kingdom of justice is to be established before the kingdom of peace can be built. We have to deal with the cruel heritage of injustice. Describing Gandhi as real revolutionary, Shri Jagmohan said "real revolutionary is one who knows how to get killed for a cause and not one who starts killing others in the name of revolution".

Symposium on National Integration

A Symposium on National Integration was held as part of the programme for Qaumi Ekta Week, Shri Ali Mohd. Naik, Education Minister, presided. Prominent speakers were Shri Balraj Puri, Prof. Ved Ghai, Zahur-Ud-Din, Devinder Singh, N.S. Gupta and Students. They highlighted various aspects of the problems of National Integration and its importance at the present juncture.

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